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THIS IS UNEVALUATED INFORMATION 50X1-HUM

1. The Moscow Grinding Machine Factory (Moskovski Zavod Shlifovalnykh Stankov, abbreviated MSZ) is located at 5 Sushchevski Val, Moscow.

2. Before the revolution, the present factory site was occupied by small engineering repair shops which produced very simple machine tools and carried out repairs of various kinds. The workshops were expanded after the revolution. During the first Five Year Plan, many large buildings were erected and a machine tool factory, which before the war was called Samotochka (universal lathe), was established.

3. The factory is under the control of the Chief Administration of the Machine Tool Construction Industry of the Ministry of Machine Tool Construction of the USSR.

Production

4. During its early years, the factory produced simple machine tools, which consisted chiefly of slotting and transverse planing machines, hydraulic broaching machines type 751 with a broaching effort of 10 tons, and others. In addition, it manufactured universal lathes.

5. In 1938, the factory started to specialize in the production of surface-grinding machines. The surface-grinding machines produced by the factory in 1938 and 1939 were almost exact copies of foreign machines.

6. In 1940, the factory began large-scale mass production of surface-grinding machines types 371, 372, and others, which were designed by Samoilov, chief designer of the factory. In 1940, about 900 machine tools of various types were produced by the factory. In 1941, prior to the outbreak of war, the factory was producing 90-100 machine tools per month.

7. At the outbreak of the war, almost 50 percent of the capacity of the factory was converted to the production of war material and the remainder of the factory continued to produce machine tools. These tools were of a new type intended for the war industry and consisted chiefly of cylinder-and-cone grinding machines of type 315 and others. At the conclusion of hostilities in 1945, the factory reverted to the production of machine tools for peacetime requirements.

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8. The Moscow Grinding Machine Factory is at present the largest producer of universal surface grinding machines and automatic and semi-automatic machines for industry in the USSR. The factory produces, on an average, 15 types of machines per month.

9. In 1948, the factory produced about 1,150 machines of various types: universal machines, aggregates, and special machines. The post-war production of the factory includes the following:

a. Universal surface grinding machine type 372-AM, which is a modernized version of type 372. These machines are mass-produced. In 1946, about 30 machines were produced per month

b. Universal surface-grinding machine type 3734, which was mass-produced at the rate of 25-30 per month.

c. Cylinder-and-cone grinding machine type 315M, which is a modernized version of type 315. These machines were mass-produced.

d. Special semi-automatic spherical grinding machine type 3484N, for grinding spherical outside rings of roller and ball bearings. The dimension of the article under treatment is controlled automatically by means of special pneumatic devices. The number of revolutions of the headstock spindle is 44-100 per minute. Diameter of rings for treatment 200-300 mm. Overall dimensions of machine: length 2,250 mm, width 2,560 mm, and height 1,700 mm. The machine operator has only to insert and to take out the rings.

e. Semi-automatic spherical grinding machine type 3484, which is similar to the 3484N machine. Used for grinding outside rings of ball bearings up to 600 mm diameter.

f. Single-spindle surface-grinding machine type 3756. This machine has a vertical spindle and a circular electro-magnetic table of 750 mm diameter. The feeding of the grinding wheel is continuous. The machine is used for grinding flat parts of standard precision.

g. Automatic machine type MSh-26, for grinding cylindrical surfaces of rollers. The machine grinds about 1,000 rollers per hour. This machine is delivered to factories of the bearing industry.

h. Semi-automatic machine for grinding curved surfaces of barrel-shaped rollers. Output capacity: about 800 rollers per hour.

i. Surface-grinding machine type 345.

j. Universal high precision surface grinding machine type SK 371. The letters SK have been assigned in honor of the designer of the machines, Konstantin Samoilov, who is the chief designer of the factory. This machine is being mass-produced. It is employed in the manufacture of tools for factories of the machine tool industry and in tool shops of factories of other industries. Maximum dimensions of surfaces ground are as follows: length 500 mm, width 20 mm, height 250 mm. The surface of the table of the machine is 600x200 mm; speed of table: 1-20 meters per minute; power of the electric motor of the grinding headstock: 2.5 KW; speed: 2,950 rpm; diameter of the grinding wheel: 250 mm. Length of the machine is 2,700 mm, width 1,500 mm, height 1,950 mm. The machine weights 1,500 kgs.

k. An improved design of surface grinding machine SK-371, which is known as SK-371A. This machine is employed on work requiring particularly smooth surfaces (machining precision up to 0.005 mm).

l. Universal surface grinding machine type 3795, for grinding large surfaces of bulky components (krupniye detali). This machine is intended for the machine tool industry, i.e., for grinding guiding carriages (napravlyayushchiye karety) and supports of any shape.

m. Semi-automatic double-spindle surface grinding machine type 3772. Two vertical spindles and a circular table. The machine is intended for surface grinding of mass-produced articles, with the face (torets) of the grinding wheel. The machine has six electric motors with a total power of 39.5 KW. The maximum dimensions of articles to be ground are as follows: width 150 mm, height 250 mm, diameter 1,000 mm. The outside diameter of the table is 1,000 mm and the inside diameter 700 mm. Diameter of grinding wheel: 450 mm; number of revolutions per minute of each spindle of the grinding wheel: 965. Overall dimensions of the machine are: length 3,570 mm, width 2,300 mm, height 2,560 mm; weight of machine: 12 tons. This machine is equipped with fittings and devices which enable it to carry out special work. The factories to which this machine has been delivered include the Moscow Automobile Factory i/n Stalin (parts for ZIS-110), the Gorki Automobile Factory i/n Molotov (parts for the Pobeda), the Moscow Low Fuel-capacity Automobile Factory (parts for the Moskvich), and other factories for machining connecting rods, valves, etc. The machine carries out rough and finishing grinding in one operation, including the automatic measurement of parts during grinding. The machine output averages 600 parts per hour.

n. Semi-automatic polishing machine MSh-23, for polishing internal spherical rings (sic) of large overall dimensions for roller and ball bearings. For designing the MSh-23 and 3795 machines, Designer G. M. Kresteshnikov received special thanks and a reward from the Ministry of Machine Tool Construction.

o. Special grinding machines type SH-7, for the optical industry.

p. Special grinding machines type SH-8, for motor vehicle and tractor parts. These machines have been delivered to many factories, including the Altai Tractor Factory, Kharkov Tractor Factory, Stalingrad Tractor Factory, Vladimir Tractor Factory, and the Stalin Automobile Factory in Moscow.

q. Special grinding machines type Sh-10, for grinding motor vehicle parts. These have been delivered to aviation and motor vehicle factories.

r. Special grinding machines type Sh-11. These have been delivered to the Molotov Automobile Factory, Gorki.

s. Vertical (karuselny) surface grinding machine, for grinding circular saws of large diameter. Diameter of table: 1.5 meters. The table has a high speed.

t. Special machines for grinding piston rings of large overall dimensions.

u. Automatic slot grinding machine, which automatically sets the grinding wheel, applies it to the article to be ground, and switches from rough to fine grinding. Designer Mokhov received an award from the Ministry of Machine Tool Industry for designing this machine.

v. Special machine for grinding cam profiles (profil) for motor vehicle camshafts.

w. Thread grinding machine for grinding threads of knurling dies (nakatnaya plashka).

x. Multiple stone grinding machines of several types for grinding crankshafts, rollers, and camshafts.

y. Special machines for machining bearing surfaces of motor connecting rods (tolkatel); precision up to 0.01 mm.

z. Semi-automatic machines for precision grinding of asbestos rings for the motor vehicle industry.

aa. Special automatic machines for grinding segments and bushes for mass-produced agricultural machines. The following machines, which are

based on the 3772 machine are used in many agricultural machinery factories: types 3772 N 17, 3772 N 19, 3772 N 29, 3772 N 31.

10. The factory is equipped with up-to-date machinery. This is especially the case with regard to the foundry, which produces most of the castings required in the factory. The Moscow Stankolit foundry supplies the factory with large castings only.

11. The Five Year Plan lays down that the factory is to produce 1,450 machines of various types in 1950. The management of the factory expects to reach this figure in 1949. Special attention is devoted to the production of machines of a particularly complicated nature.

Personnel

12. A. P. Subbotin became director of the factory in the middle of 1948, when he replaced the former director Yermakov. Subbotin died in 1949. The present head is V. I. Lokshin, the chief engineer of the factory, who is acting as factory director. Engineer Komarov is chief of production and K. A. Samoilov, a Stalin Prize Laureate, is the chief designer. The following factory designers have distinguished themselves:

G. M. Krestoshnikov
M. V. Kalinkov
P. S. Bobrov
P. N. Mokhov
Engineer Sokolov
" Konoplev
" Rabinovich
" Dubchak
" Radivilin
" V. A. Bazilev
" Volga
" Gerasimov

13. In 1949, factory personnel numbered about 2,400. Work is conducted in three shifts.